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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/647,347 | 08/26/2003 | Jian J. Chen | 2328-050A | 3505 |

7590 09/08/2004

LOWE HAUPTMAN GILMAN & BERNER, LLP
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Alexandria, VA 22314

| EXAMINER |
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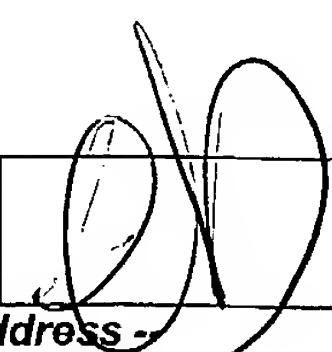
ALEJANDRO MULERO, LUZ L

| ART UNIT | PAPER NUMBER |
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1763

DATE MAILED: 09/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|-------------------------------|-----------------------------|---|
| Office Action Summary | Application No. 10/647,347 | Applicant(s) CHEN ET AL. | |
| | Examiner Luz L. Alejandro | Art Unit 1763 |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 8/26/03.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 26 and 27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 26 and 27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

The information disclosure statement filed 8/26/03 fails to comply with 37 CFR 1.98(a)(1), which requires a list of all patents, publications, or other information submitted for consideration by the Office. It has been placed in the application file, but the information referred to therein has not been considered.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 26-27 are rejected under 35 U.S.C. 102(b) as being anticipated by
Holland et al., U.S. Patent 5,759,280.

Holland et al. shows the invention as claimed including a method of controlling the plasma flux distribution on a workpiece of an inductive plasma processor 10 including a plasma excitation coil 24 having a center axis and plural parallel connected windings (42,44,46,48) adapted to be driven by an excitation source, the plural parallel connected windings being concentric with the axis so an exterior winding of the coil 48

Art Unit: 1763

surrounds the remainder of the coil, the method comprising positioning the exterior winding relative to the remainder of the coil so the plasma density incident on the workpiece has a predetermined desired relationship (see figs. 1 and 2A and their description).

Regarding claim 27, note that the positioning step includes turning the exterior winding 48 and another winding of the coil (for example, 42,44,46) relative to each other about the axis.

Claims 26-27 are rejected under 35 U.S.C. 102(b) as being anticipated by Ishii et al., U.S. Patent 5,795,429.

Ishii et al. shows the invention as claimed including a method of controlling the plasma flux distribution on a workpiece of an inductive plasma processor including a plasma excitation coil 24 having a center axis and plural parallel connected windings (24a,24b) adapted to be driven by an excitation source, the plural parallel connected windings being concentric with the axis so an exterior winding of the coil 24a surrounds the remainder of the coil, the method comprising positioning the exterior winding relative to the remainder of the coil so the plasma density incident on the workpiece has a predetermined desired relationship (see fig. 9 and its description).

Regarding claim 27, note that the positioning step includes turning the exterior winding 24a and another winding of the coil 24b relative to each other about the axis.

Claims 26-27 are rejected under 35 U.S.C. 102(e) as being anticipated by Chen et al., U.S. Patent 6,164,241.

Chen et al. shows the invention as claimed including a method of controlling the plasma flux distribution on a workpiece of an inductive plasma processor including a plasma excitation coil having a center axis and plural parallel connected windings adapted to be driven by an excitation source, the plural parallel connected windings being concentric with the axis so an exterior winding of the coil surrounds the remainder of the coil, the method comprising positioning the exterior winding relative to the remainder of the coil so the plasma density incident on the workpiece has a predetermined desired relationship (see fig. 6 and its description).

Regarding claim 27, note that the positioning step includes turning the exterior winding and another winding of the coil relative to each other about the axis.

Claims 26-27 are rejected under 35 U.S.C. 102(e) as being anticipated by Lee et al., U.S. Patent 6,288,493.

Lee et al. shows the invention as claimed including a method of controlling the plasma flux distribution on a workpiece of an inductive plasma processor including a plasma excitation coil 310 having a center axis and plural parallel connected windings (310a,310b,310c) adapted to be driven by an excitation source, the plural parallel connected windings being concentric with the axis so an exterior winding of the coil 310c surrounds the remainder of the coil, the method comprising positioning the exterior

winding relative to the remainder of the coil so the plasma density incident on the workpiece has a predetermined desired relationship (see fig. 3B and its description).


Regarding claim 27, note that the positioning step includes turning the exterior winding 310c and another winding of the coil (for example, 310a or 310b) relative to each other about the axis.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Luz L. Alejandro whose telephone number is 571-272-1430. The examiner can normally be reached on Monday to Thursday from 7:30 to 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory L. Mills can be reached on 571-272-1439. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Luz L. Alejandro
Primary Examiner
Art Unit 1763

September 7, 2004

Application/Control Number: 10/647,347
Art Unit: 1763

Page 6